

**REMARKS**

Claims 1-28 are pending in this application. By this Amendment, the specification and claims 1-21 are amended, and new claims 22-28 are added. Support for the amendments to the specification, for the amendments to claims 1-21 and for new claims 22-28 can be found in the specification as originally filed, for example, in the paragraphs beginning at page 5, line 1; page 6, line 7; page 7, line 10; page 8, line 32; page 9, line 22; page 10, line 8; page 19, line 33; page 22, line 1; page 22, line 14; page 22, line 20; page 22, line 35; page 30, line 6; page 31, line 7; page 33, line 1; page 34, line 18; page 35, line 21; page 36, line 1; and page 39, line 23; and in claims 1-21 as originally filed. No new matter is added by these amendments.

**I. Claim Rejections****A. Pfenninger**

The Office Action rejects claims 1-3, 5, 6, 10, 11 and 13-21 under 35 U.S.C. §102(b) or, in the alternative, under 35 U.S.C. §103(a) over U.S. Patent No. 6,136,942 to Pfenninger et al. The Office Action also rejects claims 4 and 7-9 under 35 U.S.C. §103 over U.S. Patent No. 6,136,942 to Pfenninger et al., as applied to claim 1. Applicants respectfully traverse these rejections together.

Independent claim 1 sets forth, in pertinent part, a "composition comprising: - at least one polyurethane prepolymer A having isocyanate end groups, prepared from at least one polyisocyanate with at least one polyol A1 and optionally at least one polyol A2 ... ; and - at least one polyaldimine B." Claims 2-11 and 13-21 depend, directly or indirectly, from claim 1 and incorporate all of the limitations thereof.

Pfenninger teaches humidity-curing one-component polyurethane compositions that include a latent curing agent bonded to a prepolymer. *See* Pfenninger, Abstract; col. 1, lines 15-23. The Pfenninger prepolymer includes isocyanogroups and latent amino groups.

See Pfenninger, col. 1, lines 15-23; col. 3, line 6 - col. 4, line 23. In particular, the Pfenninger prepolymer has the general formula  $(\text{NCO})_m\text{A}(\text{B})_n$ , in which A contains isocyanate groups and B contains latent amino groups. See Pfenninger, col. 3, lines 6-15. The B portion of the prepolymer is produced by reacting a diamine, which includes as a primary amino group and a secondary amino group, with an aldehyde to produce an aminoaldehyde or cycloaminal. See Pfenninger, col. 3, line 65 - col. 5, line 65. Based on these disclosures, the Office Action takes the position that pending claims 1-3, 5, 6, 10, 11 and 13-21 are anticipated by or obvious over, and that pending claims 4 and 7-9 are obvious over, Pfenninger. Applicants respectfully disagree.

Pfenninger teaches polyurethane compositions that have a single component that includes both isocyanate and aldimine moieties. See Pfenninger, Abstract; col. 1, lines 14-20; col. 3, line 65 - col. 5, line 65; claim 1. That is, the Pfenninger prepolymers include in a single molecule both isocyanate groups and aldimine groups. In contrast, the composition of independent claim 1 includes a first component, which is a polyurethane prepolymer that is formed by reacting a polyisocyanate with a specific linear polyoxyalkylene polyol A1 and optionally another polyol A2, and that includes isocyanate groups, and a second component, which is a polyaldimine. That is, the isocyanate groups of the claimed composition are present in polyurethane prepolymer molecules and aldimine groups of the claimed composition are present in polyaldimine molecules. See Specification, page 7, lines 3-8; page 9, lines 22-27; page 16, lines 25-37; page 29, lines 8-7-15.

Pfenninger does not disclose, nor does it suggest, polyurethane compositions in which isocyanate groups and aldimine groups are not present in the same molecule. See generally Pfenninger. Rather, Pfenninger only teaches one-component compositions that include isocyanate groups and aldimine groups in a single molecule. See Pfenninger, Abstract; col. 1, lines 14-20; col. 3, line 65 - col. 5, line 65; claim 1. At most, Pfenninger teaches reacting

amino-aldimines or cycloaminals with polyurethane prepolymers to produce its claimed prepolymer. *See e.g.* Pfenninger, col. 8, lines 4-33.

Further, Pfenninger discloses molecules that include one aldimine group, but does not disclose polyaldehydes. *See* Pfenninger, col. 4, line 66 - col. 5, line 1. Pfenninger nowhere discloses or even suggests reacting polyaldehydes with polyurethane prepolymers. *See generally* Pfenninger.

Thus, Pfenninger does not disclose, nor does it suggest, a "composition comprising:  
- at least one polyurethane prepolymer A having isocyanate end groups, prepared from at least one polyisocyanate with at least one polyol A1 and optionally at least one polyol A2 ... ;  
and - at least one polyaldehyde B," as set forth in claim 1, and therefore does not disclose or suggest the compositions of claim 1 or its dependent claims.

For at least these reasons, Applicants respectfully submit that claims 1-11 and 13-21 are patentable over Pfenninger. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**B. Pfenninger and Buelter**

The Office Action rejects claim 12 under 35 U.S.C. §103 over U.S. Patent No. 6,136,942 to Pfenninger et al. , as applied to claim 1, in view of U.S. Patent No. 4,469,831 to Buelter et al. Applicants respectfully traverse this rejection.

Claim 12 depends from and includes all of the limitations of independent claim 1, which is set forth above.

As discussed above, Pfenninger does not disclose or suggest a "composition comprising: - at least one polyurethane prepolymer A having isocyanate end groups, prepared from at least one polyisocyanate with at least one polyol A1 and optionally at least one polyol A2 ... ; and - at least one polyaldehyde B."

Bueltjer is cited for teaching that moisture-curable polyurethane compositions may be formed from polyaldimine compounds and polyurethane prepolymers having NCO functionality, "where the ratio of NCO and aldimine is around 1.3:1 to 1:1." *See* Office Action, page 4 at 6.

However, one of ordinary skill in the art would not have been motivated to modify Pfenninger, which teaches a composition having isocyanate and aldimine groups included in the same molecule, in light of Bueltjer, which teaches a composition including acid catalysts, polyurethane prepolymers having isocyanate groups and dialdimine compounds, to achieve the claimed compositions in which "at least one polyurethane prepolymer A having isocyanate end groups, prepared from at least one polyisocyanate with at least one polyol A1 and optionally at least one polyol A2" is mixed with "at least one polyaldimine B" as set forth in claim 1. The references provide no specific motivation for picking and choosing among the various features of each reference to arrive at the claimed subject matter.

The only teaching or suggestion that polyurethane composition could be formed including "at least one polyurethane prepolymer A having isocyanate end groups, prepared from at least one polyisocyanate with at least one polyol A1 and optionally at least one polyol A2 ... ; and - at least one polyaldimine B" is found in the instant specification. As is well settled, relying on the instant specification for motivation to combine the cited references would constitute impermissible hindsight. *See, e.g.,* MPEP §2143 ("The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure") (citing *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991)).

For at least these reasons, Applicants respectfully submit that claim 12 is patentable over Pfenninger and Bueltjer. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

## II. New Claims

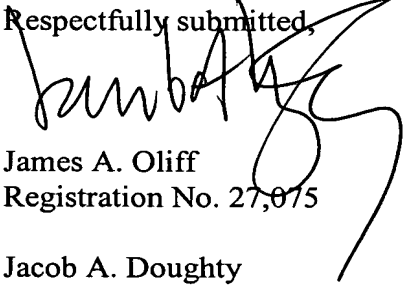
By this Amendment, new claims 22-28 are added. Claims 22-28 depend from independent claim 1 and include all of the limitations thereof. Applicants respectfully submit that, for at least the same reasons set forth above with respect to claim 1, claims 22-28 are patentable over the cited references.

## III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-28 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

  
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Attachment:  
Amendment Transmittal

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